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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Edward B. Boden

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EXAMINER

POLTORAK, PIOTR

ART UNIT

PAPER NUMBER

2134

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/058,954	Applicant(s) BODEN, EDWARD B.	
	Examiner PETER POLTORAK	Art Unit 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/29/08.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant remarks and amendment received on 3/07/08 have been entered.

Response to Amendment

2. Applicant arguments have been carefully considered.
3. The amendment to the specification is accepted.
4. In light of applicant's arguments and amendments objections to drawings and 35 U.S.C. 112, second paragraph rejections are withdrawn. For example, in order to address the term "IKE traffic" rejected under the 35 U.S.C. 112, second paragraph rejection in the previous Office Action, applicant amended the claim language: "... wherein the IKE traffic is traffic using IKE protocols." Thus, clearly, the filtering mechanism as cited in the newly amended claim language:

"... allowing IKE traffic from outside the VPN to flow into the VPN if the IKE traffic permit filters are not detected: ... wherein the IKE traffic is traffic using IKE protocols".

is directed towards the traffic during key establishment (since the IKE is necessary to establish VPN and only non-VPN traffic that utilizes IKE protocol is traffic initiating the VPN or, in other words, establishes key for VPN data exchange)

Response to Arguments

5. Applicant's argument have been directed towards the newly introduced limitation. These arguments/new limitations are addressed in this Office Action, below.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2, 9 and 20 rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.
7. The limitation "... searches for IKE traffic permit filters on a first node within the VPN" is not understood. VPN is an abstract concept (VPN stands for a 9-11, 13-27 and 30-31 Virtual Private Network, that could be implemented on a computer using software, for example), wherein a node is a computer. In other words the limitation "VPN within/on a first node" would make sense while "a first node within VPN" would not. For purpose of further examination, the limitation is treated as suggesting a node having a VPN and IKE traffic permit filters".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4, 7-8 and 9-11, 13-27 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jason (USPN 6636520) in view Zhou (J. Zhou, "Further analysis of the Internet key exchange protocol", Computer Communications, Volume 23, Issue 17, 11/1/2000) and further in view of Pfleeger (Charles P. Pfleeger, "Security in computing", 2nd edition, 1996, ISBN: 0133374866).

As per claim 1, Jason (USPN 6636520) discloses a virtual private network (VPN1 also referred to as T1) that enables a second VPN traffic (VPN2/T2, see Jason, Fig. 2 and associated text).

9. Jason does not disclose that the T2 uses IKE protocols.

Zhou discloses the use of IKE protocols (e.g. Zhou, "1. Introduction" and "2. IKE protocol"). It would have been obvious to an ordinary artisan to configure T2 disclosed by Jason to use IKE protocols given the benefit of security.

T2 using IKE protocols equate to IKE traffic.

10. Jason discloses that T1 is established prior to T2; thus, IKE traffic from outside the VPN flows into the VPN. Establishing T1 prior to T2 evidences that VPN connection precedes an IKE traffic management through VPN.

11. Jason in view of Zhu disclose a first node within the VPN (e.g. 204 or 206) but is silent in regard to the node using a filter detection system for searching for IKE traffic permit filters.

Pfleeger discloses a filter detection system for searching IKE traffic permit filters (firewalls such as screening routers or proxy gateways, Pfleeger pg. 429-431).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to employ a filter detection system for searching IKE traffic permit filters on a first node as taught by Pfleeger given the benefit of enable only authorized traffic.

12. Lastly, IKE traffic is freely allowed (either from 202 to 206 or from 206 to 202) in Jason in view of Zhou's invention. In other words, IKE traffic permit filters are not detected and IKE traffic is allowed to automatically through the VPN, which would

equate to “automatically allowing IKE traffic from outside the VPN to flow into the VPN if the IKE traffic permit filters are not detected”.

13. As per claim 3, node 206 equates to a second/remote node. (Note that for the purpose of claim 3, nodes 208 and/or 210 also read on a second node.)

14. As per claim 4, IKE traffic as discussed by Jason in view of Zhu’s invention, used to establishes tunnel T2, thus establishes security associations for a VPN connection between the first node and the second node.

15. As per claim 7, a traffic management system implementing IKE traffic must have entries that identify the connection between nodes, IP address of connected nodes and security associations for the VPN connections; otherwise communicate traffic between these nodes would not be possible. Even if, somehow, implementing the traffic without these entries, using entries that identify the connection between nodes (e.g. a port) IP address of connected nodes and security associations is old and well known in the art of computer networking (e.g. Proxys, VPNs etc.), and including them would have been an obvious variation given the benefit of correct data communication. Also, given the fact that it is old and well known in the art that tables are used to store information (e.g. ACL, DNS entries etc.) it would have been obvious to one of ordinary skill in the art at the time of applicant’s invention to employ tables to store the IKE traffic entries for motivation of a quick access to the information. Additionally, as per claim 8, tunnel T1 and T2 equate to a nested VPN connections.

16. Claims 9-11, 13-27 and 30-31 are substantially equivalent to claims 2-8; therefore claims 9-11, 13-27 and 30-31 are similarly rejected.
17. Claims 5-6, 12 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jason (USPN 6636520) in view Zhou (J. Zhou, "Further analysis of the Internet key exchange protocol", Computer Communications, Volume 23, Issue 17, 11/1/2000) and Pfleeger (Charles P. Pfleeger, "Security in computing", 2nd edition, 1996, ISBN: 0133374866), and further in view Noehring (USPUB 2002/0188871).
18. Jason in view of Zhou and Pfleeger teach the first and the second node and the IKE traffic enablement system for automatically allowing IKE traffic from outside the VPN to flow into the VPN as discussed above.
19. Jason in view of Zhou and Pfleeger do not teach the IKE traffic enablement system allowing refreshing IKE traffic (used to refresh security association) to flow between the first node and the second node.
20. Noehring discloses an IKE traffic enablement system allowing refreshing IKE traffic (used to refresh security association) to flow between the first node and the second node (Noehrin, col. 15, claims 7-8, for example). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to enable the IKE traffic enablement system to refreshing IKE traffic (used to refresh security association) to flow between the first node and the second node as taught by Noehring given the benefit of maintained connection after the expiration of the security associations.

Note that IKE is used to establish a tunnel (VPN connection) between the first and the second node.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Moshfeghi (USPN 6476833).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Poltorak whose telephone number is (571) 272-

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3840. The examiner can normally be reached Monday through Thursday from 9:00 a.m. to 4:00 p.m. and alternate Fridays from 9:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Peter Poltorak/

Examiner, Art Unit 2134

/Kambiz Zand/

Supervisory Patent Examiner, Art Unit 2134